



224/090
PATENT

#3

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:)
BOEHM et al.)
Serial No.: 08/799,396)
Filed: February 12, 1997)
For: COMPOUNDS HAVING SELECTIVE)
ACTIVITY FOR RETINOID X)
RECEPTORS, AND MEANS FOR)
MODULATION OF PROCESSES)
MEDIATED BY RETINOID X)
RECEPTORS)

Examiner:)
Group Art Unit: 1204)

COMPLETION OF FILING REQUIREMENTS

Assistant Commissioner for Patents
Box Missing Parts
Washington, D.C. 20231

Sir:

In response to the Notice to File Missing Parts of
Application (PTO-1533) mailed March 24, 1997 regarding the above-
identified patent application, enclosed are:

CERTIFICATE OF MAILING (37 CFR 1.8a)

I hereby certify that this paper (along with any referred to as being attached or
enclosed) is being deposited with the United States Postal Service on the date shown
below with sufficient postage as first class mail in an envelope addressed to the
Assistant Commissioner for Patents, Washington, D.C. 20231.

10/15/1997 TTUTT1 00000032 08799396
01 FC:101 770.00 OP
02 FC:105 130.00 OP
03 FC:102 September 22, 1995 560.00 OP
date of mailing

Yolanda G. Ybuan
name of person mailing paper
Yolanda G. Ybuan
signature of person mailing paper



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1. A copy of the Notice to File Missing Parts of Application;
2. A Petition requesting a four-month extension of time to file this response;
3. A check for \$2,930 to cover the extension fee of \$1,470, the surcharge fee of \$130, the filing fee of \$770 and the additional claims fee of \$560.

The Commissioner is hereby authorized to charge any additional fees which may be required by this communication, or credit any overpayment, to Deposit Account No. 12-2475.

Respectfully submitted,

LYON & LYON LLP

Dated: September 22, 1997

By:



Hope E. Melville
Reg. No. 34,874

LYON & LYON LLP
633 West Fifth Street
Suite 4700
Los Angeles, California 90071-2066
(213) 489-1600

A FWC

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

67137 U.S. PTO



02/12/97

PATENT

Docket No. 224/090

Anticipated Classification of this application:
Class _____ Subclass _____

Prior application Examiner: P. Killos
Art Unit: 1204

ASSISTANT COMMISSIONER FOR PATENTS
Box FWC
Washington, D.C. 20231

67212 U.S. PTO

08/799396



02/12/97

FILE WRAPPER CONTINUING APPLICATION (FWC) TRANSMITTAL (37 CFR 1.62)

1. This is a request for filing under the file wrapper continuing application procedure, 37 CFR 1.62, for a

continuation divisional continuation-in-part

Attached is an amendment for added subject matter
of prior complete application Serial No. 08/141,914, filed 10/22/93.

Title (as originally filed): COMPOUNDS HAVING SELECTIVE ACTIVITY FOR RETINOID X RECEPTORS, AND MEANS FOR MODULATION OF PROCESSES MEDIATED BY RETINOID X RECEPTORS

(and as last amended) (same)

Name of applicant(s) (as originally filed and as last amended) and current correspondence address
of applicant(s):

cc: A.

FULL NAME OF INVENTOR	<u>BOEHM</u>	Marcus	F.
	family name	first given name	second given name
RESIDENCE AND CITIZENSHIP	<u>San Diego</u>	<u>California</u>	<u>U.S.A.</u>
	city	state or foreign country	country of citizenship

POST OFFICE
ADDRESS 3833 Lamont Street, #4E San Diego California 92109
post office address city state and zip code/country

CERTIFICATE OF MAILING (37 CFR 1.10)

I hereby certify that this FWC Transmittal (along with any documents referred to as being attached or enclosed) is being deposited with the United States Postal Service on the date shown below with sufficient postage as "Express Mail Post Office To Addressee" in an envelope addressed to Box FWC, Assistant Commissioner for Patents, Washington, D.C. 20231.

EM541938215US
Express Mail mailing no.

Denise Galindo
name of person mailing paper

February 12, 1997
date of deposit


signature of person mailing paper

200

B. FULL NAME
 OF INVENTOR HEYMAN Richard A.
 family name first given name second given name

RESIDENCE AND
 CITIZENSHIP San Diego California CA U.S.A.
 city state or foreign country country of citizenship

POST OFFICE
 ADDRESS 147 Honeycomb Court Encinitas California 92024
 post office address city state and zip code/country

C. FULL NAME
 OF INVENTOR _____
 family name first given name second given name

RESIDENCE AND
 CITIZENSHIP _____
 city state or foreign country country of citizenship

POST OFFICE
 ADDRESS _____
 post office address city state and zip code/country

The above-identified application, in which no abandonment of or termination of proceedings has occurred, is hereby expressly abandoned as of the filing date of this new application. Please use all the contents of the prior application file wrapper, including the drawings, as the basic papers for the new application.

It is understood that secrecy under 35 U.S.C. 122 is hereby waived to the extent that if information or access is available to any one of the applications in the file wrapper of a 37 CFR 1.62 application, be it either this application or a prior application in the same file wrapper, the PTO may provide similar information or access to all the other applications in the same file wrapper.

2. INVENTORSHIP STATEMENT

This application discloses and claims only subject matter disclosed in the prior application whose particulars are set out above and the inventor(s) in this application are

the same.

less than those named in the prior application and it is requested that the following inventor(s) identified above for the prior application be deleted
 {type name(s) of inventor(s) to be deleted}

This application discloses and claims additional disclosure by amendment and a new declaration or oath is being filed. With respect to the prior application whose particulars are set out above, the inventor(s) in this application are

the same

add the following additional inventor(s):
 {type name of inventor(s) to be added}

The inventorship for all the claims in this application is

the same.

not the same, and an explanation, including the ownership of the various claims at the time the last claimed invention was made, is submitted.

3. DECLARATION OR OATH

Continuation or divisional. None required.

Continuation-in-part

attached, executed by

inventor(s).

4. IDENTIFICATION OF CLAIMS FOR FURTHER PROSECUTION

The fees to be charged are to be based on the number of claims remaining as a result of the

attached preliminary amendment.

the unentered amendment filed under 37 CFR 1.116 in the prior application, which is now repeated.

the claims as on file in the prior application.

5. FEE CALCULATION

CLAIMS FOR FEE CALCULATION

Number Filed	Number Extra	Rate	Basic Fee	\$770.00
Total Claims	11	- 20 = 0	x \$22.00 =	\$0.
Independent Claims	8	- 3 = 5	x \$80.00 =	\$400.00
Multiple Dependent Claim(s), if any	0		\$260.00 =	\$0.

The fee for extra claims is not being paid at this time.

Filing Fee Calculation \$1170.00

6. **SMALL ENTITY STATEMENT(S)**

A Verified Statement(s) that this is a filing by a small entity is(are) attached.

The small entity statement was filed in the parent application Serial No. _____, which parent application was filed on _____ and this status is still proper and its benefit under 37 CFR 1.28(a) is hereby claimed.

Filing Fee Calculation (50% of above) \$ _____

7. **FEES PAYMENT BEING MADE AT THIS TIME**

Not attached. No filing fee is submitted. [This and the surcharge required by 37 CFR 1.16(e) can be paid subsequently.]

Attached

Filing fee. \$ _____

Recording assignment. [\$8.00; 37 CFR 1.21(h)(1)]

Petition fee for filing by other than all the inventors or person on behalf of the inventor where inventor refused to sign or cannot be reached.

[\$130.00; 37 CFR 1.47 and 1.17(h)]

Petition fee to Suspend Prosecution for The Time Necessary to File An Amendment (New Application Filed Concurrently). [\$130.00; 37 CFR 1.103 and 1.17(i)(1)]

For processing an application with a specification in a non-English language. [\$30.00; 37 CFR 1.52(d) and 1.17(k)]

Processing and retention fee.
[\$130.00; 37 CFR 1.53(d) and 1.21(l)]

Total Fees Enclosed \$ _____

8. **METHOD OF PAYMENT OF FEES**

Attached is a check in the amount of \$_____.

Charge Deposit Account No. **12-2475** in the amount of \$_____.

A duplicate of this transmittal is attached.

9. **AUTHORIZATION TO CHARGE ADDITIONAL FEES**

— The Commissioner is hereby authorized to charge the following additional fees by this paper and during the entire pendency of this application to Deposit Account No. **12-2475**:

- 37 CFR 1.16 (filing fees)
- 37 CFR 1.16 (presentation of extra claims)
- 37 CFR 1.16(e) (surcharge for filing the basic filing fee and/or declaration on a date later than the filing date of the application)
- 37 CFR 1.17 (application processing fees)
- 37 CFR 1.18 (issue fee at or before mailing of Notice of Allowance, pursuant to 37 CFR 1.311(b))

10. **INSTRUCTIONS AS TO OVERPAYMENT**

- Credit Deposit Account No. **12-2475**.
- Refund

11. **PRIORITY -- 35 U.S.C. 119**

- Priority of application Serial No. _____, filed on _____ in {country} is claimed under 35 U.S.C. 119.
- The certified copy has been filed on _____ in prior U.S. application Serial No. 0 / _____, filed on _____, which prior application was filed on _____.
- Certified copy will follow.

12. **RELATE BACK -- 35 U.S.C. 120**

Amend the Specification by inserting, before the first line, the sentence:
"This is a _____ divisional continuation continuation-in-part of co-pending application(s) Serial No. 08/141,914, filed on 10/22/93.

13. **ASSIGNMENT**

The prior application is assigned of record to LIGAND PHARMACEUTICALS INCORPORATED.

— An Assignment of the invention to _____ is attached.

14. **POWER OF ATTORNEY**

The power of attorney in the prior application is to

The power of attorney in the prior application is to the registered attorneys listed below and members of or associates in the law firm of **LYON & LYON LLP**, 633 West Fifth Street, Suite 4700, Los Angeles, California 90071-2066, Registration No. 11,611, whose members are all admitted to the Bar of the State of California:

Roland N. Smoot	Reg. No. 18,718	David B. Murphy	Reg. No. 31,125
Conrad R. Solum, Jr.	Reg. No. 20,467	James C. Brooks	Reg. No. 29,898
James W. Geriak	Reg. No. 20,233	Jeffrey M. Olson	Reg. No. 30,790
Robert M. Taylor, Jr.	Reg. No. 19,848	Steven D. Hemminger	Reg. No. 30,755
Samuel B. Stone	Reg. No. 19,297	Jerrold B. Reilly	Reg. No. 32,293
Douglas E. Olson	Reg. No. 22,798	Paul H. Meier	Reg. No. 32,274
Robert E. Lyon	Reg. No. 24,171	John A. Rafter, Jr.	Reg. No. 31,653
Robert C. Weiss	Reg. No. 24,939	Kenneth H. Ohriner	Reg. No. 31,646
Richard E. Lyon, Jr.	Reg. No. 26,300	Mary S. Consalvi	Reg. No. 32,212
John D. McConaghay	Reg. No. 26,773	Lois M. Kwasigroch	Reg. No. 35,579
William C. Steffin	Reg. No. 26,811	Lawrence R. LaPorte	Reg. No. 38,948
Coe A. Bloomberg	Reg. No. 26,605	Robert C. Laurenson	Reg. No. 34,206
J. Donald McCarthy	Reg. No. 25,119	Carol A. Schneider	Reg. No. 34,923
John M. Benassi	Reg. No. 27,483	Hope E. Melville	Reg. No. 34,874
James J. Shalek	Reg. No. 29,749	Michael J. Wise	Reg. No. 34,047
Allan W. Jansen	Reg. No. 29,035	Richard J. Warburg	Reg. No. 32,327
Robert W. Dickerson	Reg. No. 29,914		
Roy L. Anderson	Reg. No. 30,240		

The power appears in the original papers in the prior application.

The power does not appear in the original papers, but was filed on _____.

A new power has been executed and is attached.

Address all future communications to:

LYON & LYON LLP
633 West Fifth Street, Suite 4700
Los Angeles, California 90071-2066
(213) 489-1600

Attention: Hope E. Melville, Esq.

15. **MAINTENANCE OF CO-PENDENCY OF PRIOR APPLICATION**

A petition, fee and response has been filed to extend the term in the pending **prior** application until _____. A copy of the petition for extension of time in the **prior** application is attached.

16. **CONDITIONAL PETITIONS FOR EXTENSION OF TIME IN PRIOR APPLICATION**

A conditional petition for extension of time is being filed in the pending **prior** application. A copy of the conditional petition for extension of time in the **prior** application is attached.

17. **ABANDONMENT OF PRIOR APPLICATION**

X Please abandon the prior application at a time while the prior application is pending or when the petition for extension of time or to revive in that application is granted and when this application is granted a filing date so as to make this application co-pending with said prior application. At the same time, please add the words "now abandoned" to the amendment of the specification set forth in Item 13 above.

18. **INFORMATION DISCLOSURE STATEMENT**

X Submitted herewith is an Information Disclosure Statement.

19. **PETITION PURSUANT TO 37 CFR § 1.313(b)(5)**

X Submitted concurrently is a Petition pursuant to 37 CFR § 1.313(b)(5) to permit withdrawal of the prior application and filing of this FWC application to permit consideration of an IDS.

Respectfully submitted,

By 
Hope E. Melville
Reg. No. 34,874
Attorney of Record

LYON & LYON LLP
633 West Fifth Street, Suite 4700
Los Angeles, California 90071-2066
(213) 489-1600



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BOEHM et al.)
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For: COMPOUNDS HAVING SELECTIVE)
ACTIVITY FOR RETINOID X)
RECEPTORS, AND MEANS FOR)
MODULATION OF PROCESSES)
MEDIATED BY RETINOID X)
RECEPTORS)

Examiner:

Group Art Unit: 1204

PRELIMINARY AMENDMENT

Assistant Commissioner for Patents
Washington, D.C. 20231

Sir:

Prior to examination of the above-identified application, applicants respectfully request amendment of the application as detailed below. Applicants also request consideration of the following Remarks.

CERTIFICATE OF MAILING (37 CFR 1.8a)

I hereby certify that this paper (along with any referred to as being attached or enclosed) is being deposited with the United States Postal Service on the date shown below with sufficient postage as first class mail in an envelope addressed to the Assistant Commissioner for Patents, Washington, D.C. 20231.

Yolanda G. Ybuan

name of person mailing paper

Yolanda G. Ybuan

signature of person mailing paper

September 22, 1997
date of mailing

IN THE CLAIMS

Please add new claims 12 and 13.

12. A method for modulating a process selectively mediated by one or more Retinoid X Receptors, said method comprising causing said process to be conducted in the presence of at least one compound which selectively activates a Retinoid X Receptor in preference to a Retinoic Acid Receptor.

13. A method for treating a mammalian subject requiring Retinoid X Receptor therapy comprising administering to such subject a pharmaceutically effective amount of one or more compounds which selectively activate a Retinoid X Receptor in preference to a Retinoic Acid Receptor.

REMARKS

New claims 12 and 13 have been added to the application. These claims are directed to the disclosed methods utilizing compounds which selectively activate a Retinoid X Receptor (RXR) in preference to a Retinoid Acid Receptor (RAR). Support for these claims is found generally throughout the specification. For example, at pages 65-71 of the specification, compounds including 3-methyl-TTNCB and 3-methyl-TTNEB, among others are disclosed which preferentially activate Retinoid X Receptors versus Retinoic Acid Receptors. Additionally, pages 75-76 of the specification disclose compounds that readily activate RXRs in preference to RARs as evaluated by the co-



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transfection assay. A method for treating a mammalian subject with compounds that selectively activate RXRs in preference to RARs is described in Example 53, pp. 79-81 of the specification.

Respectfully submitted,

LYON & LYON LLP

Dated: September 22, 1997

By: 
Hope E. Melville
Reg. No. 34,874

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Suite 4700
Los Angeles, California 90071-2066
(213) 489-1600